

1 CLAIMS

2 What is claimed is:

3 1. A method of generating a structured document, said method
4 comprising:

5 generating an edit interface in response to a selection of a structured
6 document template from a plurality of structured document templates;

7 displaying said edit interface and a plurality of document elements
8 associated with said edit interface;

9 modifying said edit interface by dragging and dropping a selected
10 document element of said plurality of document elements; and

11 generating an output structured document from said edit interface in
12 response to a generation command.

13
14 2. The method according to claim 1, wherein said method of generating a
15 structured document further comprises:

16 providing a template selection user interface including a dialog box, a
17 folder, and a pull down menu, wherein said template selection user interface is
18 configured to select said one structured document template from said plurality of
19 structured document templates.

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1 **3.** The method according to claim 1, wherein said step of providing a
2 template selection user interface further comprising:

3 providing a plurality of existing output structured documents by said
4 template selection user interface; and

5 selecting an existing output structured document from said plurality of
6 existing output structured documents.

7
8 **4.** The method according to claim 3, wherein said step of generating said
9 edit interface further comprises:

10 generating said edit interface from a selected existing output structured
11 document, wherein said edit interface includes user-input data previously stored with
12 said existing output structured document.

13
14 **5.** The method according to claim 1, wherein each of said plurality of
15 structured document templates includes a document type definition.

1 **6.** The method according to claim 5, wherein said step of generating an
2 edit interface further comprising:

3 utilizing a corresponding document type definition for said selected
4 structured document template to generate a memory model;

5 parsing said memory model for a plurality of required document
6 elements;

7 generating said edit interface including said plurality of required
8 document elements, each said document element requiring an input of information;
9 and

10 outputting said generated edit interface to a user interface editor.

11
12 **7.** The method according to claim 6, wherein said step of generating said
13 edit interface further comprises:

14 embedding said corresponding document type definition of said
15 selected one structured document template within said edit interface.

16
17 **8.** The method according to claim 7, wherein said step of modifying said
18 edit interface further comprises:

19 receiving user-input modification data;

20 determining a compliance of said user-input modification data with
21 said memory model; and

22 modifying said edit interface with said user-input modification data in
23 response to said compliance of said user-input modification data.

1 **9.** The method according to claim 8, further comprising:

2 receiving user-input document element information for said plurality of
3 required document elements and said selection of one or more optional document
4 elements;

5 determining receipt of user-input document element information for
6 each of said plurality of required document elements and said each selected optional
7 document element in response to receiving a user generation request; and

8 generating an output structured document memory model utilizing said
9 user-input document element information for each of said plurality of required
10 document elements and for each said selected optional document element.

11
12 **10.** The method according to claim 9, wherein said step of generating said
13 output structured document further comprising:

14 determining compliance of said generated output structured document
15 memory model with said memory model; and

16 generating said output structured document in response to said
17 generated output structured document memory model in compliance with said
18 document type definition memory model.

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1 **11.** The method according to claim 10, further comprises:

2 outputting said output structured document, said outputting including
3 one of printing said output structured document, storing said output structured
4 document to a local directory, storing said output structured document to a remote
5 directory, and storing said output structured document to a document management
6 service.

7
8 **12.** A document authoring system comprising:

9 an edit interface generator configured to generate an edit interface in
10 response to receiving a structured document template;

11 a user interface editor configured to modify said edit interface by
12 dragging and dropping a selected document element from a plurality of document
13 elements and to modify said edit interface by entering user-input modification data,
14 wherein said user interface editor is further configured to generate a modified edit
15 interface in response to completion of selection of said plurality of document elements
16 and said user-input modification data; and

17 an output structured document generator configured to receive said
18 modified edit interface, said output structured document generator being further
19 configured to generate a structured document based on said modified edit interface,
20 and to output said structured document, wherein said output includes one of printing
21 said structured document, storing said structured document to a local directory, a
22 remote directory, and storing said structured document to a document management
23 service.

1 **13.** The document authoring system according to claim 12, further
2 comprising:

3 a plurality of structured document templates, wherein each of said
4 plurality of structured document templates includes a document type definition; and

5 a template selection user interface configured to provide said
6 structured document template used to generate said edit interface from said plurality
7 of structured document templates.

8
9 **14.** The document authoring system according to claim 13, further
10 comprising:

11 a parser configured to extract said document type definition from said
12 structured document template, wherein said edit interface generator is further
13 configured to generate a document type definition memory model from said extracted
14 document type definition.

15
16 **15.** The document authoring system according to claim 14, wherein said
17 parser is configured to identify a plurality of required document elements from said
18 document type definition memory model, said edit interface generator is further
19 configured to generate said edit interface from both said identified plurality of
20 required document elements and said extracted document type definition.

1 **16.** The document authoring system according to claim 15, further
2 comprising:

3 a graphical user interface configured to receive said user-input
4 modification data, said user interface editor is further configured to modify said edit
5 interface based on said user-input modification data.

6
7 **17.** The document authoring system according to claim 16, wherein said
8 user-input modification data including one of user-input document element
9 information for said plurality of required document elements, a selection of one or
10 more optional documents included in said document type definition memory model,
11 and user-input document element information for said selection of one or more
12 optional documents.

1 **18.** A program storage device or signals readable by a computer, tangibly
2 embodying instructions executable by said computer to perform a method for
3 enabling a user to generate a structured document capable of being printed, stored to a
4 local directory, stored to a remote directory, and stored to a document management
5 service, said generation comprising:

6 generating an edit interface in response to a selection of a structured
7 document template from a plurality of structured document templates;

8 displaying said edit interface and a plurality of document elements
9 associated with said edit interface;

10 modifying said edit interface by dragging and dropping a selected
11 document element of said plurality of document elements; and

12 generating an output structured document from said edit interface in
13 response to a generation command.

14
15 **19.** A method for generating an edit interface, said method comprising:

16 generating a document type definition memory model based on
17 document elements parsed from a corresponding document type definition;

18 generating an edit interface memory model based on said document
19 type definition memory model;

20 embedding said document type definition within said edit interface
21 memory model, wherein an output structured document generated from said user
22 interface memory model is configured to be edited; and

23 outputting an edit interface based on said edit interface memory model.
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1 **20.** A method for generating an edit user interface, said method
2 comprising:
3 parsing a document type definition memory model for a plurality of
4 required document elements, a plurality of optional elements, and a plurality of
5 element tags;
6 displaying said plurality of required document elements, each required
7 document element being displayed in a corresponding document element dialog box
8 in said edit interface;
9 displaying said plurality of optional document elements, each optional
10 document element being displayed as a corresponding document element icon in said
11 edit interface; and
12 displaying said plurality of element tags, each element tag being
13 displayed as a corresponding element tag icon in said edit interface.